

REMARKS/ARGUMENT

Claim 1 has been amended to avoid any ambiguity with dependent claim 3. Dependent claim 3 recites forming a series of pseudo-frames by interleaving each field with a previous field, which may or may not be from an adjacent frame. The remainder of the independent claims have been similarly amended.

In paragraph 1 of the Office Action, independent claims 1, 27 and 53 stand rejected under 35 USC § 103(a) as being unpatentable over Rao et al (6,041,142) in view of Coombs et al (5,565,998) and Agarwal (5,850,264). The Examiner recognizes that Rao does not disclose or suggest the forming of pseudo frames as set forth in the claims. The Examiner relies upon Coombs and Agarwal for the missing teachings. The Examiner concludes that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the method described by Rao and add the pseudo frames taught by Coombs and Agarwal in order to obtain an apparatus that efficiently identifies data types in the video stream." Applicant respectfully disagrees.

Coombs does not teach forming a series of pseudo frames. The portion of Coombs relied upon by the examiner is nothing more than an illustration of the operation of a 3:2 pull down sequence. In transferring a 24 Hz film to a USA standard video (30 frames/second), there are simply not enough original film frames to fill the video. Thus, it is necessary to "manufacture" frames. In the 3:2 pull down sequence, the first video frame is the same as the first film frame (AO/AE); the second and third frames may be said to be pseudo frames as they are comprised of AO/BE and BO/CE, respectively. Video frames 4 and 5 are the same as film frames C and D. Thus, only two of the five frames are arguable pseudo frames. It is not seen how the teachings related to the sequence of frames produced by a 3:2 pull down sequence could lead one of ordinary skill in the art to use a series of pseudo frames in the apparatus and method of Rao, let alone improve the efficiency of Rao.

It is respectfully submitted that Agarwal does not help the examiner's position. Agarwal teaches the discarding of various fields:

By referring again to FIG. 1, in conjunction with FIGS. 2, 3(a), and 3(b), basic concept of this invention can be readily gleaned. The odd and even fields of the sequential video frames are alternately digitally encoded. This entails

encoding one-half as much pixel data as is available from the original video source. As shown in FIG. 2, half of the originally-available video data is discarded in a regular sequential pattern before the digital encoding is implemented. This concept is also depicted in FIG. 3(a) wherein the information in the dotted-line odd and even half frames is not encoded for transmission. One might be inclined to conclude that such a drastic elimination of information would result in serious degradation of the received image. But, on the contrary, Applicant has discovered that by a suitable synthesis of this incomplete data, a quite acceptable good quality video image can be created (if the subject does not make sudden movements).

Column 2, line 65 – column 3, line 14

One could argue that the forgoing teaches the production of pseudo frames at the receiving end by discarding fields, but it is not seen how such a teaching can be combined with Rao. In fact, the loss of half the data may make detecting scene changes more difficult.

In view of the foregoing, it is respectfully requested that the rejection of independent claims 1, 27 and 53 under 35 USC § 103(a) be withdrawn.

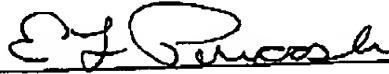
Independent claims 14, 40 and 66 have been rejected under 35 USC § 103(a) as being unpatentable over Rao in view of Coombs et al and Agarwal. The rejection of claims 14, 40 and 66 is substantially the same as the rejection of claims 1, 27 and 53. Applicant submits that for the same reasons that claims 1, 27 and 53 are patentable, claims 14, 40 and 66 are also patentable. Accordingly, the rejection of claims 14, 40 and 66 under 35 USC § 103(a) should be withdrawn.

Applicant has not at this time presented arguments in favor of the patentability of the dependent claims nor has applicant challenged the Examiner's interpretation of Rao. Applicant reserves the right to submit arguments in favor of the dependent claims as well as arguments directed to Rao should that become necessary.

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Applicant has made a diligent effort to place the instant application in condition for allowance. Accordingly, a notice of allowance for claims 1-78 is respectfully requested.

Respectfully submitted,



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